

**REMARKS**

Claims 1-8 are currently pending in the subject application, and are presently under consideration. Claims 1-8 are rejected. Claims 1-4 and 6-7 have been amended. Favorable reconsideration of the application is requested in view of the amendments and comments herein.

**I. Rejection of Claims 2-4 and 6-7 Under 35 U.S.C. §102(b)**

Claims 2-4 and 6-7 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,930,246 to Akutsu ("Akutsu"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Claim 2 has been amended to recite transmitting multiple ultra wideband (UWB) data pulses in a first time division multiple access (TDMA) interval and receiving multiple UWB return data pulses later in the same TDMA interval. Akutsu does not disclose the employment of UWB data pulses for any purpose. Instead, Akutsu discloses that a transmitting signal amplifier 36 produces an amplified signal from a high-frequency signal (See Akutsu, Col. 5, Lines 41-45). The Specification discloses that UWB communication uses a large band of the frequency spectrum (See Spec., Par. [0002]). Thus, transmitting or receiving a high frequency signal, as disclosed in Akutsu, does not correspond to transmitting multiple UWB data pulses in a first TDMA interval and receiving multiple UWB return data pulses later in the same TDMA interval, as recited in amended claim 2. Therefore, Akutsu fails to anticipate amended claim 2. Accordingly, amended claim 2, as well as claims 3-4 depending therefrom, should be patentable over the cited art.

Additionally, claim 3 has been amended to recite that multiple UWB data pulses are transmitted to a first user, and the multiple UWB return data pulses are received from the same first user. As stated above with respect to amended claim 1, Akutsu does not disclose UWB data pulses. Therefore, Akutsu cannot disclose the elements recited in amended claim 3. Thus, Akutsu does not anticipate amended claim 3.

Furthermore, claim 4 has been amended to recite transmitting multiple data pulses to a second user in a second TDMA time interval and receiving multiple return data pulses from the

second user in the second TDMA interval. As stated above with respect to amended claims 3 and 2, from which claim 4 depends, Akutsu does not disclose UWB data pulses. Therefore, Akutsu cannot disclose the elements recited in amended claim 4. Thus, Akutsu does not anticipate amended claim 4.

Claim 6 has been amended to recite transmitting multiple UWB data pulses in a first TDMA time interval, wherein the data pulses are addressed to separate multiple users, and receiving multiple UWB return data pulses later in the same TDMA time interval, wherein the return data pulses are received from separate multiple users. As stated above with respect to claims 4, 3 and 2, Akutsu does not disclose UWB data pulses. Therefore, Akutsu cannot disclose the elements recited in amended claim 6. Accordingly, Akutsu does not anticipate amended claim 6, and amended claim 6, as well as claim 7 depending therefrom, should be patentable over the cited art.

Additionally, claim 7 has been amended to recite transmitting multiple UWB data pulses to multiple users in a second TDMA time interval, and receiving multiple UWB return data pulses later in the same second TDMA time interval. As stated above with respect to amended claim 6, from which amended claim 7 depends, Akutsu does not disclose UWB data pulses. Therefore, Akutsu cannot disclose the elements recited in amended claim 7. Accordingly, Akutsu does not anticipate amended claim 7.

For the reasons described above, claims 2-4 and 6-7 should be patentable over the cited art. Accordingly, withdrawal of this rejection is respectfully requested.

## II. Rejection of Claims 1, 5 and 8 Under 35 U.S.C. §103(a)

Claims 1, 5 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Akutsu in view of U.S. Patent No. 6,101,176 to Honkasalo, et al. ("Honkasalo"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Claim 1 has been amended to recite transmitting a first user (a second user and other) UWB user pulse in a first (and subsequent) TDMA time interval. Akutsu does not teach or

suggest the employment of UWB pulses for any purpose. Instead, Akutsu discloses that a transmitting signal amplifier 36 produces an amplified signal from a high-frequency signal (See Akutsu, Col. 5, Lines 41-45). The Specification discloses that UWB communication uses a large band of the frequency spectrum (See Spec., Par. [0002]). Thus, transmitting or receiving a high frequency signal, as disclosed in Akutsu does not correspond to transmitting a first user (a second user and other) UWB user pulse in a first (and subsequent) TDMA time interval, as recited in amended claim 1. The addition of Honkasalo does not make up for the deficiencies of Akutsu. Honkasalo is directed to a system for reducing interferences between two radio communication networks that have overlapping areas of coverage and use the same radio frequencies (emphasis added; See Honkasalo, Col. 1, Lines 12-15). Similarly to Akutsu, Honkasalo also fails to teach or suggest the employment of UWB pulses.

Moreover, notwithstanding the aforementioned deficiencies of the cited art, Akutsu taken in view of Honkasalo fails to teach or suggest that each TDMA time interval is selected to be twice the propagation time needed to transmit data to a user, to minimize interference effects. In rejecting claim 1, the Examiner contends that Honkasalo teaches this element of claim 1 (See Office Action, Pages 5-6, citing Col. 1, Lines 59-67 of Honkasalo). Applicant's representative respectfully disagrees. The cited section of Honkasalo discloses that by coordinating time references for overlaid large and small scale networks, different time delays can be used to distinguish between signals within the respective network to avoid interference (See Honkasalo, Col. 1, Lines 63-65). In contrast to amended claim 1, the cited section of Honkasalo provides no teaching or suggestion that each TDMA time interval is selected based on a propagation time. Instead, Honkasalo merely discloses that time delays can be used to distinguish between signals within a network. Therefore, Akutsu taken in view of Honkasalo fails to teach or suggest that each TDMA time interval is selected to be twice the propagation time needed to transmit data to a user, to minimize interference effects, as recited in amended claim 1. Accordingly, Akutsu taken in view of Honkasalo does not teach or suggest each and every element of amended claim 1.

Additionally, the U.S. Court of Appeals for the Federal Circuit has held that to imbue one of ordinary skill in the art with knowledge of the invention under consideration, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein teachings of the invention are used against itself. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 312-313 (Fed. Cir. 1983). Since none of the cited art teaches or suggests the use of UWB pulses, Applicant's representative respectfully submits that any finding of obviousness of amended claim 1 based on the teachings of Akutsu and Honkasalo would be based on improper hindsight. Accordingly, Akutsu taken in view of Honkasalo does not make amended claim 1 obvious. Therefore, amended claim 1 should be patentable over the cited art.

Claims 5 and 8 depend from amended claims 2 and 6 respectively, and are patentable for at least the same reasons as amended claims 2 and 6. Moreover, the addition of Honkasalo does not make up for the deficiencies of Akutsu. In particular, for the reasons stated above with respect to amended claim 1, Akutsu taken in view of Honkasalo fails to teach or suggest that each TDMA time interval is selected to be twice the propagation time needed to transmit data to a user, to minimize interference effects, as recited in claims 5 and 8. Additionally, for the reasons stated above with respect to amended claim 1, any finding of obviousness of claims 5 and 8 based on the teachings of Akutsu and Honkasalo would be based on improper hindsight. Accordingly, Akutsu taken in view of Honkasalo does not make claims 5 and 8 obvious. Therefore, claims 5 and 8 should be patentable over the cited art.

For the reasons described above, claims 1, 5 and 8 should be patentable over the cited art. Accordingly, withdrawal of this rejection is respectfully requested.

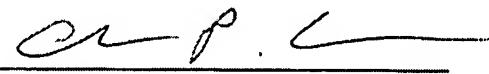
**CONCLUSION**

In view of the foregoing remarks, Applicant respectfully submits that the present application is in condition for allowance. Applicant respectfully requests reconsideration of this application and that the application be passed to issue.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

Date 8/13/07

  
Christopher P. Harris  
Registration No. 43,660

CUSTOMER No.: 26,294

TAROLLI, SUNDHEIM, COVELL, & TUMMINO L.L.P.  
1300 EAST NINTH STREET, SUITE 1700  
CLEVELAND, OHIO 44114  
Phone: (216) 621-2234  
Fax: (216) 621-4072